

**IOWA PEACE OFFICERS'
RETIREMENT, ACCIDENT AND
DISABILITY SYSTEM**

Actuarial Valuation Report
as of July 1, 2007

Milliman, Inc.
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**ACTUARIAL VALUATION
OF THE
IOWA PEACE OFFICERS'
RETIREMENT, ACCIDENT AND DISABILITY SYSTEM**

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
- Letter of Transmittal	
1 Executive Summary	1
2 System Assets	8
3 System Liabilities	14
4 System Contributions	17
5 Plan Accounting Information	20

APPENDICES

A	System Membership Information
B	Summary of Plan Provisions
C	Actuarial Method and Assumptions



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November 5, 2007

Board of Trustees
Iowa Peace Officers' Retirement, Accident
and Disability System
Wallace State Office Building
Des Moines, IA 50319

Dear Members of the Board:

In accordance with your request, we have performed an actuarial valuation of the Iowa Peace Officers' Retirement, Accident and Disability System as of July 1, 2007 for determining the adequacy of the statutory contribution rate. The results of the valuation are contained in this report. The report reflects the benefit provisions and contribution rates in effect as of July 1, 2007. The plan provisions and actuarial methods are unchanged from those used in last year's valuation. As a result of an experience study performed for the System in 2007, several assumptions were changed.

In preparing our report, we relied, without audit, on information (some oral and some written) supplied by the System's staff. This information includes, but is not limited to, statutory provisions, member data and financial information. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted principles and practices which are consistent with the Actuarial standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions, and supporting recommendations of the American Academy of Actuaries.



We hereby further certify that all costs, liabilities, rates of interest and other factors for the System have been determined on the basis of actuarial assumptions and methods which are, individually reasonable (taking into account the experience of the Plan and reasonable expectations); and which, in combination, offer our best estimate of anticipated experience under the Plan. Nevertheless, the emerging costs will vary from those presented in this report to the extent actual experience differs from that projected by the actuarial assumptions. The Board of Trustees has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix C.

Actuarial computations presented in this report are for purposes of determining the actuarial contribution rates for funding the System. Actuarial computations under GASB Statements No. 25 and 27 are for purposes of fulfilling financial accounting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals, and of GASB Statements No. 25 and 27. Determinations for purposes other than this may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

Milliman's work product was prepared exclusively for the Iowa Peace Officers' Retirement, Accident and Disability System for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning the Iowa Peace Officers' Retirement, Accident and Disability System operations, and uses Iowa Peace Officers' Retirement, Accident and Disability System data, which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

I, Patrice A. Beckham, F.S.A., am a Member of the American Academy of Actuaries and a Fellow of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

I, Brent A. Banister, F.S.A., am a Member of the American Academy of Actuaries and a Fellow of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,

MILLIMAN, INC.

Patrice A. Beckham, F.S.A.
Consulting Actuary

Brent A. Banister, F.S.A.
Actuary

SECTION 1

EXECUTIVE SUMMARY

Purpose of the Report

This report presents the results of the July 1, 2007 actuarial valuation of the Iowa Peace Officers' Retirement, Accident and Disability System (PORS). The primary purposes of performing the valuation are as follows:

- to determine the normal contribution rate payable by the State under Chapter 97A.8(1b) of the Code of Iowa.
- to satisfy the reporting requirements under Chapter 97A.8 of the Code of Iowa.
- to disclose asset and liability measures indicating the current funded status of the System as of the valuation date.
- to analyze and report on trends in System contributions, assets, and liabilities over the past several years.
- to provide financial reporting information in accordance with Statements No. 25 and 27 of the Governmental Accounting Standards Board.

The law governing the Peace Officers' Retirement, Accident and Disability System requires the actuary, as the technical advisor to the Board of Trustees, to make "an annual valuation of the assets and liabilities of the funds of the System created by this Chapter." [Chapter 97A, Section 5].

The valuation results provide a "snapshot" view of the System's financial condition on July 1, 2007. The 2007 valuation is based on the same benefit provisions and methods as last year's valuation. The actuarial assumptions used in this valuation have changed from those used in the 2006 valuation. Based on the results of an experience study conducted in 2007, the Board approved the following changes to the actuarial assumptions:

- Change the mortality assumption to the RP-2000 Mortality Table with generational improvements.
- Extend the withdrawal assumption through year 20 and modify rates in years 1 through 5.
- Increase the retirement rates at ages 60 and 61 and decrease the rate at age 59.
- Modify the assumed rate of accidental disability for active members.
- Modify the salary scale, increasing it for shorter service and decreasing it for higher years of service.

In aggregate, these changes increased the System's liabilities and the normal cost rate.

The State's normal contribution rate increased from 34.18% in last year's valuation to 36.49% this year, based on a member contribution rate of 9.35%. This rate exceeds the State's appropriated contribution rate of 17% by 19.49%. Milliman did not make any assumption regarding the operation of Chapter 97A relating to the Board's ability to raise member contribution rates. Several factors impacted the normal contribution rate:

- An investment return on the actuarial value of assets above the expected rate decreased the contribution rate.
- Actual contributions below the actuarial rate increased the contribution rate.
- Other actuarial experience was favorable, which lowered the contribution rate.
- Changes in the assumptions which, in total, increased the contribution rate.

Changes in both the System's assets and liabilities impact the contribution rate. Experience which is more favorable than anticipated, based on actuarial assumptions, will generally lower the contribution rate and experience less favorable than expected will generally increase the contribution rate.

The State's appropriated contribution rate of 17% of payroll has been much lower than the actuarial contribution rate for the last six years. The shortfall between the State's actuarial contribution rate and the actual contributions to the System results in an increase in the contribution rate. Given the fixed contribution rate of 17%, the shortfall in subsequent years will increase, absent the existence of significant favorable experience. Given the System's funded status and assuming actuarial assumptions are met in future years, significantly higher contributions are needed. The longer it takes to increase the funding level, the higher the ultimate contribution rate will be. We urge the Board and the State to take action to address the long term funding of the System.

Contribution Rates

The total contribution rate for the Plan Year beginning July 1, 2007 is 45.84% of covered payroll. Assuming a member contribution rate of 9.35%, the State's portion is 36.49%. This is 2.31% more than the prior year's rate. The sources of change are as follows:

	Plan Year Beginning	
	<u>July 1, 2007</u>	<u>July 1, 2006</u>
Prior year total contribution rate	43.53%	45.09%
• change due to asset (gains)/losses	(2.60)%	(0.73)%
• change due to other actuarial experience	(0.62)%	(2.20)%
• change due to new assumptions	4.13%	0.00%
• change due to actual contribution rate other than actuarial rate	1.40%	1.37%
Current year total contribution rate	45.84%	43.53%
Members' contribution rate	<u>9.35%</u>	<u>9.35%</u>
State's normal contribution rate	36.49%	34.18%



Liabilities

The liabilities of the System are the value of future benefit payments promised to current members. There are different measurements of liability, depending on which type of future benefits are being valued. The standard measurements include:

- **Actuarial Balance Sheet Liability** is used in developing the total contribution rate. This liability is calculated based on both future salary projections and service credits to retirement or other separation from service. It represents the present value of all benefits expected to be paid to all current System participants (retired, active and deferred vested) in the future. The difference between the actuarial balance sheet liability and the actuarial value of assets is the present value of future contributions to the System, which ultimately determines the total contribution rate.
- **Projected Benefit Obligation (PBO)** was a liability measurement used for reporting purposes under GASB No. 5. Newer GASB standards replaced this reporting basis, but POR continues to report for GASB 25 purposes using the PBO. The PBO represents the present value of benefits based on future payroll projections but only reflecting service credits as of June 30, 2007. This measure of the funded status of the plan does not impact the normal contribution rate.
- **Liability for Accrued Benefits** is used only for informational purposes. It does not impact the total contribution rate for the System. This liability represents the present value of benefits earned to date, based on service and salary as of June 30, 2007. The liability for accrued benefits is often used as a measure of the funded status since it represents the amount required to pay all accrued benefits if the fund were to liquidate on the measurement date.

Each liability measurement discussed above is used for a different purpose. Therefore, the relative importance of the measurement will depend on the perspective of the person using the information. From an actuarial viewpoint, the actuarial balance sheet liability is the most critical because it, along with the actuarial value of assets, ultimately determines the total contribution rate for the System. The other liability figures are valuable because they provide useful comparisons of assets and liabilities, but the actuarial balance sheet liability is the driving force in determining the contribution rate.

A comparison of System liabilities between July 1, 2006 and July 1, 2007 are summarized below:

	July 1		Change
	2007	2006	
Actuarial Balance Sheet Liability	\$505,749,368	\$471,675,249	7.2%
PBO	392,022,773	358,844,655	9.2%
Liability for Accrued Benefits	337,163,321	302,759,544	11.4%



Assets

As of July 1, 2007, the System had total funds, measured on a market value basis, of \$310,489,530. This was an increase of \$31,548,793 from last year's market value. The components of the change in the market value of assets are shown below:

	Market Value
Net Assets, July 1, 2006	\$278,940,737
• Employer and Member Contributions	9,880,794
• Benefit Payments	(17,493,416)
• Expenses	(130,584)
• Investment Income	39,291,999
Net Assets, July 1, 2007	\$310,489,530

The dollar weighted rate of return on the market value of assets, net of expenses, was 14%.

The market value of assets is not used directly in the calculation of the contribution rate. The System uses an asset valuation method to smooth the effects of market fluctuations. The actuarial value of assets spreads the difference between the actual return and the expected return (based on the actuarial assumption) over four years. See page 12 for a detailed development of the actuarial value of assets. The smoothing method was first implemented with the July 1, 2001 valuation.

Between July 1, 2006 and July 1, 2007, the actuarial value of assets increased by \$25.6 million.

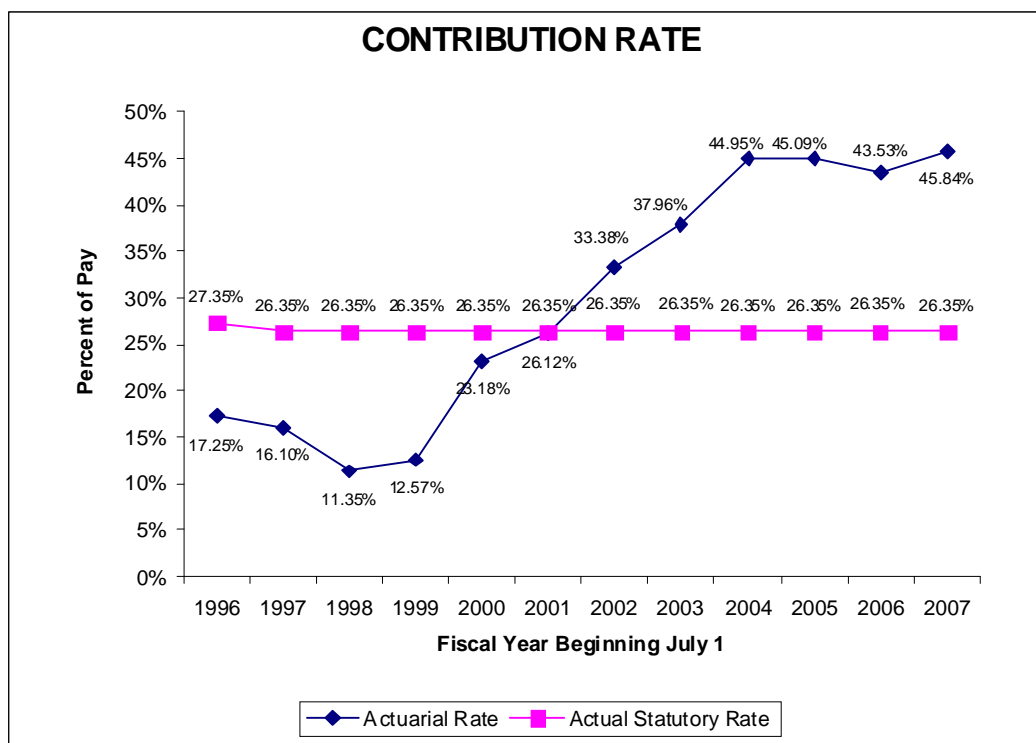
	Plan Year Ending June 30	
	2007	2006
Actuarial Value of Net Assets at the beginning of the plan year	\$267,813,445	\$251,828,813
Change in Assets		
- Contributions (including lump sum)	9,880,794	8,964,288
- Benefits and Refunds	(17,493,416)	(16,244,573)
- Administrative Expenses	(130,584)	(111,273)
- Investment Return	33,304,566	23,376,190
Total Changes	25,561,360	15,984,632
Actuarial Value of Net Assets at the end of the plan year	\$293,374,805	\$267,813,445

The expected investment earnings on the actuarial value of assets for the plan year ending June 30, 2007 are based on an assumed rate of return of 8.0%. The actual rate of return on the actuarial value of assets was approximately 12.6%, resulting in an actuarial gain of about \$12.2 million and a corresponding decrease in the contribution rate of 2.60%. More detail on the System assets is presented in Section 2 of this report.

Starting with the inception of the smoothing method, the actuarial value of assets exceeded the market value as prior losses were deferred. The last three years, however, the situation has reversed as recent favorable investment returns are now being deferred and the market value of assets is greater than the actuarial value. There is currently \$17 million in deferred investment experience, which will help to improve the System's funding or help offset unfavorable investment experience in future years.

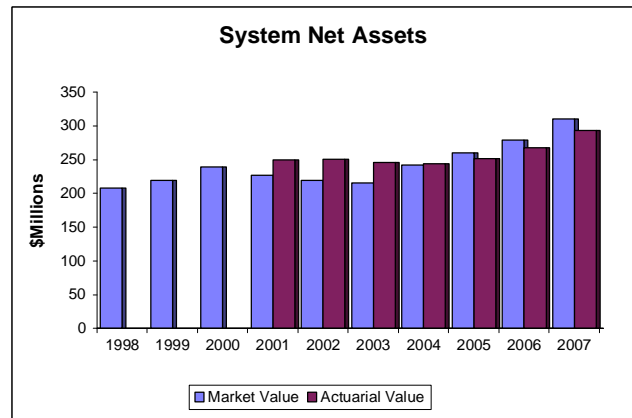
Comparison of Major Valuation Results

The major findings of the 2007 valuation compared with prior valuation results are summarized and compared in the following charts.

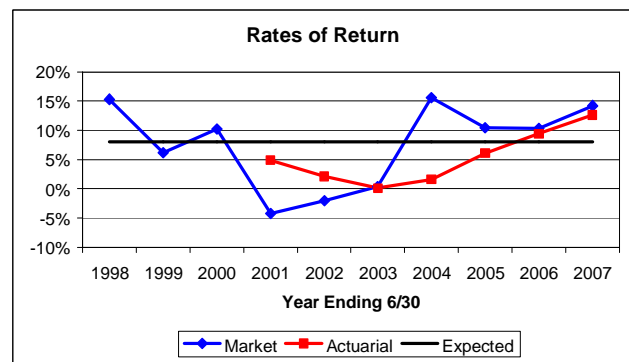


The statutory contribution rate exceeded the actuarial contribution rate in the late 1990's, but unfavorable experience from 2001 through 2003 helped lead to a reversal of that situation. During the middle of this period, the number of active members decreased which also increased the contribution rate. Due to actual contributions that are less than the actuarial normal contribution rate, the actuarial rate has continued to grow, stabilizing with favorable investment experience coupled with an influx of new members the last three years.

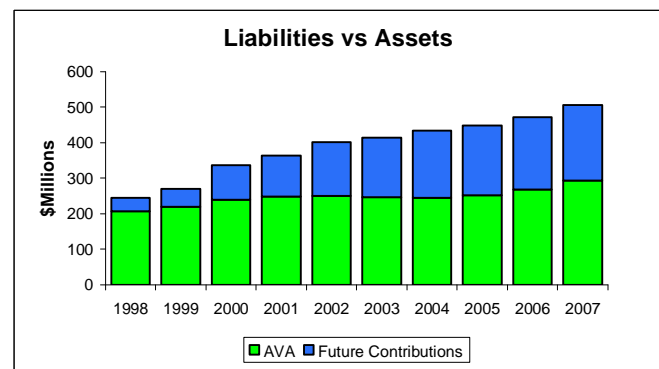
An asset smoothing method was implemented with the 2001 valuation. Actual investment performance below the 8% assumption resulted in the actuarial value of assets exceeding the market value in 2001-2003. Strong investment performance since FY2004 has resulted in the market value of assets exceeding actuarial.



Rates of return on the market value of assets are volatile. The return on the actuarial value of assets (first implemented in 2001) illustrates the advantage of using an asset smoothing method.



The difference between the present value of future benefits and the actuarial value of assets, the present value of future contributions (PVFNC), has increased significantly over this period due to unfavorable investment experience and actual contributions to the fund below the actuarial rate. As a result, the contribution rate has increased.



PVFB = Present Value of Future Benefits (Actuarial Balance Sheet Liability)
 MV = Market Value of Assets
 AV = Actuarial Value of Assets

COMPARISON OF PRINCIPAL VALUATION RESULTS

	July 1, 2007	July 1, 2006	% Chg
SYSTEM MEMBERSHIP			
1. Active Membership			
- Number of Participants	631	618	2.1
- Projected Covered Payroll	\$ 37,268,060	\$ 36,231,639	2.9
- Average Salary	59,062	58,721	0.6
- Average Attained Age	38.5	39.0	(1.3)
- Average Service	12.9	13.3	(3.0)
2. Inactive Membership			
- Number of Vested Deferred Members	32	35	(5.9)
- Number of Retired Members & Beneficiaries	523	500	4.4
- Average Annual Benefit	\$ 34,751	\$ 33,421	4.0
ASSETS AND LIABILITIES			
1. Net Assets			
- Market Value	\$310,459,530	\$278,940,737	11.3
- Actuarial Value	\$293,374,805	\$267,813,445	9.5
2. Projected Liabilities			
- Annuity Savings Fund	\$ 0	\$ 0	0.0
- Pension Reserve Fund	238,095,076	206,079,548	15.5
- Annuity Reserve Fund	0	0	0.0
- Pension Accumulation Fund	267,649,292	265,595,701	0.8
- Total	\$505,744,368	\$471,675,249	7.2
SYSTEM CONTRIBUTIONS			
Total Contribution Rate	45.84%	43.53%	5.3
Member's Contribution Rate	9.35%	9.35%	0.0
State's Normal Contribution Rate	36.49%	34.18%	6.8
Appropriated Contribution Rate	17.00%	17.00%	0.0
Excess (Shortfall)	(19.49)%	(17.18)%	13.4%



SECTION 2

SYSTEM ASSETS

In many respects, an actuarial valuation can be thought of as an inventory process. The inventory is taken as of the actuarial valuation date, which for this valuation is July 1, 2007. On that date, the assets available for the payment of benefits are appraised. The assets are compared with the liabilities of the System, which are generally in excess of assets. The actuarial process leads to a method of determining the contributions needed by members and the employer in the future to balance the System assets and liabilities.

Market Value of Assets

The current market value represents the “snapshot” or “cash-out” value of System assets as of the valuation date. In addition, market values of assets provide a basis for measuring investment performance from time to time. At July 1, 2007 the market value of assets for the Retirement System was \$310,489,530. Table 1 is a comparison, at market values, of System assets as of July 1, 2006 and July 1, 2007, in total and by investment category. Table 2 summarizes the change in the market value of assets from July 1, 2006 to July 1, 2007.

Actuarial Value of Assets

Neither the market value of assets, representing a “cash-out” value of System assets, nor the book value of assets, representing the cost of investments, may be the best measure of the System’s ongoing ability to meet its obligations. To arrive at a suitable value for the actuarial valuation, a technique for determining the actuarial value of assets is used which dampens swings in the market value while still indirectly recognizing market values. The actuarial value of assets is equal to the market value of assets less a four year phase-in of the excess (shortfall) between expected investment return (based on the actuarial assumption) and actual investment return.

Tables 3 and 4 show the development of the actuarial value of assets (AVA) as of the valuation date.

TABLE 1
IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM
ANALYSIS OF NET ASSETS AT MARKET VALUE

	<u>July 1, 2007</u>		<u>July 1, 2006</u>	
	Amount	% of Total	Amount	% of Total
Pooled Cash	\$ 3,798,580	1.1	\$ 10,710,443	3.1
Receivables	4,311,908	1.2	5,885,719	1.7
Common Stocks	189,302,783	54.7	162,920,122	47.1
Securities on Loan	34,899,986	10.1	58,677,349	17.0
Bonds	97,148,347	28.0	97,453,123	28.2
Real Estate	<u>16,945,038</u>	<u>4.9</u>	<u>10,052,478</u>	<u>2.9</u>
Subtotal	\$ 346,406,642	100.0%	\$ 345,699,234	100.0%
Payables	<u>(35,917,112)</u>		<u>(66,758,497)</u>	
NET ASSETS	<u>\$ 310,489,530</u>		<u>\$ 278,940,737</u>	



TABLE 2
IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM
SUMMARY OF FUND ACTIVITY
 (Market Value)

1. NET ASSETS ON JULY 1, 2006	\$278,940,737
2. CONTRIBUTIONS	
a. Member Contributions	\$ 3,617,843
b. Employer Contributions	6,262,951
c. Lump Sum Contributions	<u>0</u>
d. Total Contributions	\$ 9,880,794
3. BENEFIT PAYMENTS	
a. Pension and annuity payments	\$ 17,482,698
b. Refunds	<u>10,718</u>
c. Total Benefit Payments	\$ 17,493,416
4. ADMINISTRATIVE EXPENSE	\$ 130,584
5. INVESTMENT INCOME	\$ 39,291,999
6. NET ASSETS ON JULY 1, 2007	
(1) + (2d) - (3c) - (4) + (5)	\$ 310,489,530



TABLE 3
IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM
CALCULATION OF EXCESS (SHORTFALL) INVESTMENT INCOME FOR
ACTUARIAL VALUE OF ASSETS

	Plan Year Ending June 30			
	<u>2007</u>	<u>2006</u>	<u>2005</u>	<u>2004</u>
1. Market value of assets, beginning of year	\$278,940,737	\$260,104,910	\$242,279,998	\$215,454,491
2. Contributions during year				
a. Member	3,617,843	3,146,469	2,993,823	3,026,103
b. Employer	6,262,951	5,817,819	5,442,868	5,502,718
c. Lump sum payments	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
d. Total	9,880,794	8,964,288	8,436,691	8,528,821
3. Benefits paid during year	17,482,698	16,229,598	15,541,819	14,742,141
4. Refunds paid during year	10,718	14,975	11,025	7,019
5. Expected net investment income at 8%				
a. Market value of assets, beginning of year	22,315,259	20,808,393	19,382,400	17,236,359
b. Contributions	387,628	351,673	330,975	334,590
c. Benefits	(685,855)	(636,695)	(609,713)	(578,341)
d. Refunds	<u>(420)</u>	<u>(587)</u>	<u>(433)</u>	<u>(275)</u>
e. Total	22,016,612	20,522,784	19,103,229	16,992,333
6. Expected Value of Assets (1) + (2d) - (3) - (4) + (5e)	293,344,727	273,347,409	254,267,074	226,226,485
7. Market value of assets, end of year	310,489,530	278,940,737	260,104,910	242,279,998
8. Excess (shortfall) of investment income for Year (7) - (6)	17,144,803	5,593,328	5,837,836	16,053,513



TABLE 4
IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM
DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

<u>Item</u>	<u>Plan Year Ending June 30</u>	
	<u>2007</u>	<u>2006</u>
1. Excess (Shortfall) of investment income for current and previous 2 years		
a. Current year	\$17,144,803	\$5,593,328
b. Current year - 1	5,593,328	5,837,836
c. Current year - 2	<u>5,837,836</u>	<u>16,053,513</u>
d. Total	28,275,967	27,484,677
2. Deferral of excess (shortfall) of investment income		
a. Current year (75%)	12,858,602	4,194,996
b. Current year - 1 (50%)	2,796,664	2,918,918
c. Current year - 2 (25%)	<u>1,459,459</u>	<u>4,013,378</u>
d. Total deferred	17,114,725	11,127,292
3. Market value of plan net assets, end of year	310,489,530	278,940,737
4. Actuarial value of plan assets, end of year (Item 3 - Item 2d)	\$293,374,805	\$267,813,445
5. Actuarial value divided by market value	94.5%	96.0%

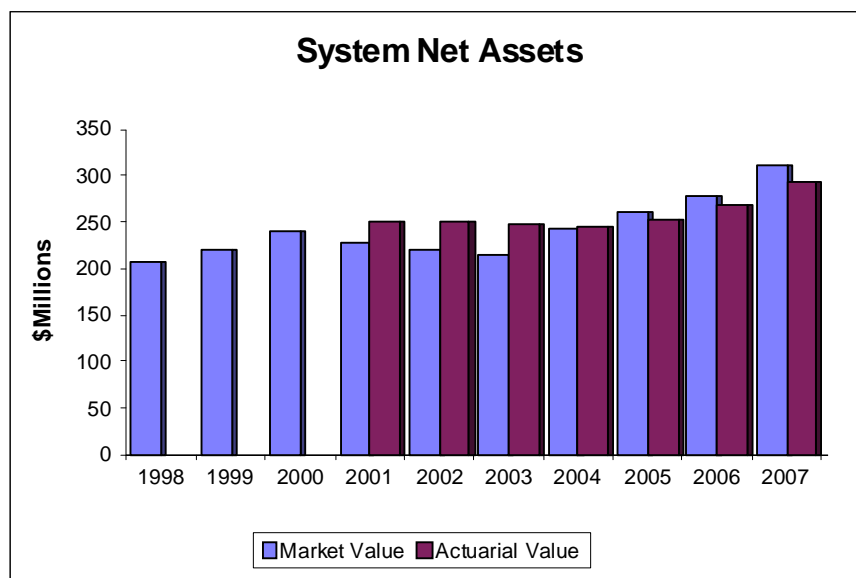


TABLE 5
IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM
HISTORICAL COMPARISON

<u>Value As of</u>	<u>Market Value of Net Assets</u>	<u>Estimated Rate of Return (MVA)*</u>	<u>Actuarial Value of Assets**</u>	<u>Estimated Rate of Return (AVA)</u>
July 1, 1997	\$180,551,242	18.9%		
July 1, 1998	207,649,859	15.3%		
July 1, 1999	219,462,509	6.2%		
July 1, 2000	239,568,583	10.2%		
July 1, 2001	227,402,298	-4.2%	\$249,226,895	4.9%
July 1, 2002	219,373,555	-2.0%	250,914,077	2.1%
July 1, 2003	215,454,491	0.4%	246,443,660	0.1%
July 1, 2004	242,279,998	15.6%	244,161,533	1.6%
July 1, 2005	260,104,910	10.4%	251,828,813	6.1%
July 1, 2006	278,940,737	10.3%	267,813,445	9.4%
July 1, 2007	310,489,530	14.2%	293,374,805	12.6%

*Net of Expenses.

**A smoothing method for actuarial value of assets was implemented July 1, 2001



SECTION 3

SYSTEM LIABILITIES

In the previous section, an actuarial valuation was compared with an inventory process, and an analysis was given of the inventory of assets of the System as of the valuation date, July 1, 2007. In this section, the discussion will focus on the commitments of the System, which are referred to as its liabilities.

Table 6 contains an analysis of the actuarial present value of all future benefits (PVFB) for contributing members, inactive members, retirees and their beneficiaries. These liabilities include the actuarial present value of all future benefits expected to be paid with respect to each member. For an active member, this value includes measures of both benefits already earned and future benefits to be earned. For all members, active and retired, the value extends over benefits earnable and payable for the rest of their lives and, if an optional benefit is chosen, for the lives of the surviving beneficiaries.

The actuarial assumptions used to determine liabilities are based on the results of an Experience Study prepared for the System. The assumptions, as adopted by the Board, are shown in Appendix C.

All liabilities reflect the benefit structure in place July 1, 2007.

TABLE 6
IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM
ACTUARIAL BALANCE SHEET LIABILITIES

The actuarial balance sheet liabilities represent the present value of all future benefits expected to be paid from the fund for current members, including both future salary projections and service credits.

	<u>July 1, 2007</u>	<u>July 1, 2006</u>
Present Value of Projected Future Benefits		
Active Members	\$265,222,210	\$262,590,480
Inactive Vested Members	2,427,082	3,005,221
Retirees and Beneficiaries	<u>238,095,076</u>	<u>206,079,548</u>
Total	\$505,744,368	\$471,675,249

TABLE 7
IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM
PRESENT VALUE OF ACCRUED BENEFITS

The present value of accrued benefits represents the lump sum value, as of the valuation date, of benefits earned to date based on service and salary as of the valuation date.

<u>Present Value of Accrued Benefits</u>	<u>July 1, 2007</u>	<u>July 1, 2006</u>
1. Vested Benefits		
a. Participants currently receiving payments	\$ 238,095,076	\$ 206,079,548
b. Inactive vested members	2,427,082	3,005,221
c. Active members	<u>94,866,314</u>	<u>92,941,850</u>
d. Total vested benefits	\$ 335,388,472	\$ 302,026,619
2. Nonvested Benefits	\$ 1,774,849	\$ 732,925
3. Total Present Value of Accrued Benefits	\$ 337,163,321	\$ 302,759,544
4. Market Value of Assets	\$ 310,489,530	\$ 278,940,737
5. Unfunded (Surplus) Present Value of Accrued Benefits	\$ 26,673,791	\$ 23,818,807
6. Funded Percentage	92.1%	92.1%



SECTION 4

SYSTEM CONTRIBUTIONS

The previous two sections were devoted to a discussion of the assets and liabilities of the System. A comparison of Tables 6 and 4 indicates that current assets fall short of meeting the present value of future benefits (total System liability). This is expected in all but a fully closed down fund, where no further contributions are anticipated.

In an active system, there will almost always be a difference between the actuarial value of assets and total liabilities. This deficiency has to be made up by future contributions and investment returns. An actuarial valuation sets out a schedule of future contributions that will deal with this deficiency in an orderly fashion.

The method used to determine the incidence of the contributions in various years is called the actuarial cost method. Under an actuarial cost method the contributions required to meet the difference between current assets and current liabilities are allocated to each year of service, and are called the normal cost.

The actuarial funding method used to determine System costs is the Aggregate Cost method. A more detailed description of this method can be found in Appendix C.

TABLE 8
IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

ACTUARIAL BALANCE SHEET
as of
July 1, 2007

ASSETS

Actuarial value of assets	\$ 293,374,805
Present value of future contributions	<u>212,369,563</u>
<u>Total Net Assets</u>	\$ 505,744,368

LIABILITIES

Present Value of Projected Benefits

Retired Members and Beneficiaries	\$ 238,095,076
Active Members	
Retirement	\$ 232,596,423
Ordinary death	3,859,027
Accidental death	3,885,712
Accidental disability	13,970,962
Ordinary disability	8,863,082
Termination	2,047,004
Total	265,222,210
Inactive Vested Members	<u>2,427,082</u>
<u>Total Liabilities</u>	\$ 505,744,368



TABLE 9
IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM
DEVELOPMENT OF THE
NORMAL CONTRIBUTION RATE

	<u>7/1/07</u>	<u>7/1/06</u>
1. Actuarial Present Value of Projected Benefits	\$ 505,744,368	\$ 471,675,249
2. Actuarial Value of Plan Assets	293,374,805	267,813,445
3. Actuarial Present Value of Future Contributions The excess of the actuarial present value of projected pension benefits over the actuarial value of assets) (the amount used to determine normal cost).	212,369,563	203,861,804
4. Actuarial Present Value of Future Valuation Earnings of Active Members	463,261,247	468,284,275
5. Total Normal Contribution Rate The actuarial present value of future contributions divided by the actuarial present value of future earnings.	45.84%	43.53%
6. Member's Contribution Rate	9.35%	9.35%
7. State's Normal Contribution Rate (5) - (6)	36.49%	34.18%
8. Contribution Rate Appropriated	17.00%	17.00%
9. Excess (Shortfall) The excess of the appropriated contribution rate over the State's normal contribution rate: (8) - (7)	(19.49)%	(17.18)%
10. Projected Covered Payroll	\$ 37,268,060	\$ 36,231,639
11. Estimated Amount of State's Contribution		
(a) Normal Contribution: (7) x (10)	13,599,115	12,383,974
(b) Appropriated Contribution: (8) x (10)	6,335,570	6,159,379
(c) Excess (Shortfall): (11b) - (11a)	(7,263,545)	(6,224,595)



SECTION 5

PLAN ACCOUNTING INFORMATION

One liability measurement for evaluating the funded status of the Plan is the standardized “pension benefit obligation”. This value (known as the actuarial present value of credited projected benefits) is that portion of the present value of all projected pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of employee service to date under the projected unit credit actuarial cost method. The measure is independent of the actuarial funding method used to determine contributions to the System.

The pension benefit obligation as determined for both this year and last year is summarized below:

	<u>7/1/07</u>	<u>7/1/06</u>
Pension Benefit Obligation		
Former Members (in pay status or deferred)	\$ 240,522,158	\$ 209,084,769
Current Employees:		
- Estimated accumulated employee contributions including allocated investment earnings	52,861,394	51,306,978
- Employer-financed vested obligation	94,653,096	96,520,275
- Employer-financed nonvested obligation	<u>3,986,125</u>	<u>1,932,633</u>
Total Pension Benefit Obligation	\$ 392,022,773	\$ 358,844,655
 Net Market Value of Assets Available for Benefits	 \$ 310,489,530	 \$ 278,940,737
 Unfunded Pension Benefit Obligation	 \$ 81,533,243	 \$ 79,903,918
 Funded Percentage	 79.2%	 77.7%

The actuarial assumptions used to determine the pension benefit obligation are the same as those used in the respective valuations (see the Actuarial Assumptions section).



In an effort to enhance the understandability and usefulness of the pension information that is included in the financial reports of pension plans for state and local governments, the Governmental Accounting Standards Board (GASB) issued Statement No. 25 - Financial Reporting for Defined Benefit Pension Plans and Statement No. 27 - Accounting for Pensions by State and Local Governmental Employers.

GASB Statement No. 25 establishes a financial reporting framework for defined benefit plans. In addition to two required statements regarding plan assets, the statement requires two schedules and accompanying notes disclosing information relative to the funded status of the plan and historical contribution patterns.

- The Schedule of Funding Progress is not required for plans which use the Aggregate Method to determine the annual required contribution. Since the information shown in the schedule is similar to the information formerly required under GASB Statement No. 5, the Peace Officers' Retirement, Accident, and Disability System has elected to prepare the schedule based on the Projected Unit Credit method. The system uses an asset smoothing method, which was first implemented with the July 1, 2001 valuation.
- The Schedule of Employer Contributions provides historical information about the annual required contribution (ARC) and the percentage of the ARC that was actually contributed. For the Peace Officers' Retirement, Accident and Disability System, the ARC is equal to State's Normal Contribution Rate multiplied by the expected covered payroll for the fiscal year.

GASB Statement No. 27 establishes standards for the measurement, recognition, and display of pension expense and related liabilities. Annual pension cost is measured and disclosed on the accrual basis of accounting. In general, the annual pension cost is equal to the ARC with adjustments for past under-contributions or over-contributions. These adjustments are based on the net pension obligation (NPO) that represents the cumulative difference between the annual pension cost and the actual contributions to the plan. The first adjustment is equal to interest on the NPO which is added to the ARC. The second adjustment is an amortization of the NPO which is deducted from the ARC. Because the system uses the Aggregate method to determine the ARC, the amortization basis is a level percentage of payroll over the average remaining service life of active members.

These statements were adopted by the Peace Officers' Retirement System for the 1996 fiscal year. A transition pension liability (asset) was developed under Statement No. 27 equal to the cumulative difference between the actuarially determined funding requirement and the actual amount contributed for fiscal years 1988 through 1995. As of the adoption date, all outstanding pension liabilities (assets) were adjusted to equal the transition NPO.

TABLE 10
IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

SCHEDULE OF FUNDING PROGRESS

In accordance with Statement No. 25 of the Governmental Accounting Standards Board

Actuarial Valuation Date	Actuarial Value of Assets* (a)	Actuarial Accrued Liability (AAL)** (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (P/R) (c)	UAAL as a Percentage of Covered P/R [(b-a)/c]
6/30/98	207,649,859	178,631,341	(29,018,518)	116.24%	26,954,246	(107.66%)
6/30/99	219,462,509	187,312,171	(32,150,338)	117.16%	28,059,369	(114.58%)
6/30/00	239,568,583	240,785,081	1,216,498	99.49%	30,292,856	4.02%
6/30/01	249,226,895	263,001,999	13,775,104	94.76%	30,925,529	44.54%
6/30/02	250,914,077	294,514,429	43,600,352	85.20%	32,154,663	135.60%
6/30/03	246,443,660	306,098,170	59,654,510	80.51%	33,019,306	180.67%
6/30/04	244,161,533	338,799,386	94,637,853	72.07%	32,519,722	291.00%
6/30/05	251,828,813	343,117,410	91,288,597	73.39%	33,336,856	273.84%
6/30/06	267,813,495	358,844,655	91,031,160	74.63%	36,231,639	251.25%
6/30/07	293,374,805	392,022,773	98,647,968	74.84%	37,268,060	264.70%

*Beginning with the 6/30/01 valuation, a smoothing method was used to determine the actuarial (market related) value of assets. Prior to this, market value was used.

**The Aggregate method, which does not directly develop an actuarial accrued liability, is used to determine the actuarial required contribution. The actuarial accrued liability shown here is based on the Projected Unit Credit Cost method.

TABLE 11
IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

SCHEDULE OF EMPLOYER CONTRIBUTIONS

In accordance with Statement No. 25 of the Governmental Accounting Standards Board

Fiscal Year Ending	Annual Required Contribution (a)	Total Employer Contribution (b)	Percentage of ARC Contribution (b / a)
6/30/98	\$1,773,145	\$4,588,667	258.79%
6/30/99	556,317	4,860,834	873.75%
6/30/00	948,875	3,990,488	420.55%
6/30/01	4,231,914	5,291,371	125.03%
6/30/02	5,332,844	5,466,366	102.50%
6/30/03	7,883,879	5,540,116	70.27%
6/30/04	9,446,823	5,502,718	58.25%
6/30/05	11,577,021	5,442,868	47.01%
6/30/06	11,914,592	5,817,819	48.83%
6/30/07	12,383,974	6,262,951	50.57%

Notes to the Required Schedules:

1. The cost method used to determine the ARC is the Aggregate Cost Method. This method does not identify or separately amortize unfunded actuarial liabilities.
2. The assets are shown at fair market value prior to 6/30/01 and at actuarial (market related) value thereafter.
3. Economic assumptions are as follows:
 - Investment return rate of 8.00%.
 - Salary increase rate varies from 6.75% to 4.75%, based on years of service.
 - Post-retirement benefit increases are based on expected payroll growth and provisions of the law.
4. The System is using the Aggregate cost method. Therefore, there is no specific amortization method or period.



TABLE 12
IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

Development of the Net Pension Obligation

**In Accordance with Statement No. 27 of the
Governmental Accounting Standards Board**

Fiscal Year:	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>
Assumptions and Method:					
Interest Rate	8.00%	8.00%	8.00%	8.00%	8.00%
Wage Inflation	4.00%	4.00%	4.00%	4.00%	4.00%
Amortization Period (years)	14	18	18	18	18
Cost Method	Aggregate	Aggregate	Aggregate	Aggregate	Aggregate
Annual Pension Cost:					
Annual Required Contribution (ARC)	\$556,317	\$948,875	\$4,231,914	\$5,332,844	\$7,883,879
Interest on NPO	(718,926)	(1,053,431)	(1,298,858)	(1,386,201)	(1,399,643)
Adjustment to ARC	<u>842,132</u>	<u>1,027,211</u>	<u>1,266,529</u>	<u>1,351,697</u>	<u>1,346,805</u>
Annual Pension Cost	679,523	\$922,655	\$4,199,585	\$5,298,340	\$7,831,041
Contribution for the Year:	\$4,860,834	\$3,990,488	\$5,291,371	\$5,466,366	\$5,540,116
Net Pension Obligation (NPO):					
NPO at beginning of year	\$ (8,986,581)	\$ (13,167,892)	\$ (16,235,725)	\$ (17,327,511)	(17,495,537)
Annual Pension Cost for year	679,523	922,655	4,199,585	5,298,340	7,831,041
Contributions for year	<u>(4,860,834)</u>	<u>(3,990,488)</u>	<u>(5,291,371)</u>	<u>(5,466,366)</u>	<u>(5,540,116)</u>
NPO at end of year	\$ (13,167,892)	(16,235,725)	(17,327,511)	(17,495,537)	(15,204,612)

Fiscal Year:	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>
Assumptions and Method:					
Interest Rate	8.00%	8.00%	8.00%	8.00%	8.00%
Wage Inflation	4.00%	4.00%	4.00%	4.00%	4.00%
Amortization Period (years)	17	17	17	17	16
Cost Method	Aggregate	Aggregate	Aggregate	Aggregate	Aggregate
Annual Pension Cost:					
Annual Required Contribution (ARC)	\$9,446,823	\$11,577,021	\$11,914,592	\$12,383,974	\$13,599,115
Interest on NPO	(1,216,369)	(899,356)	(407,525)	80,714	570,297
Adjustment to ARC	<u>1,234,931</u>	<u>913,080</u>	<u>413,744</u>	<u>(81,946)</u>	<u>(604,863)</u>
Annual Pension Cost	\$9,465,385	\$11,590,745	\$11,920,811	\$12,382,742	\$13,564,549
Contribution for the Year:	\$5,502,718	5,442,868	5,817,819	6,262,951	*
Net Pension Obligation (NPO):					
NPO at beginning of year	(15,204,612)	(11,241,945)	(5,094,068)	1,008,924	
Annual Pension Cost for year	9,465,385	11,590,745	11,920,811	12,382,742	
Contributions for year	<u>(5,502,718)</u>	<u>(5,442,868)</u>	<u>(5,817,819)</u>	<u>(6,262,951)</u>	*
NPO at end of year	(11,241,945)	(5,094,068)	1,008,924	7,128,715	

* Will not be determined until the end of Fiscal Year 2008.

APPENDIX A

**SYSTEM MEMBERSHIP
INFORMATION**

IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

AGE AND SERVICE DISTRIBUTION AS OF JULY 1, 2007 FOR ACTIVE PARTICIPANTS

Males and Females

Years of Service

Age	<u>0 to 4</u>		<u>5 to 9</u>		<u>10 to 14</u>		<u>15 to 19</u>		<u>20 to 24</u>		<u>25 to 29</u>		<u>30 to 34</u>		<u>35 to 39</u>		<u>40 and over</u>		<u>Total</u>	
	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary
Under 25	30	39,995	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	30	39,995
25-29	57	42,161	15	49,774	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	72	43,747
30-34	28	43,958	67	53,975	27	57,944	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	122	52,554
35-39	9	43,463	27	53,418	92	61,481	4	68,069	0	NA	0	NA	0	NA	0	NA	0	NA	132	58,803
40-44	0	NA	5	54,138	48	61,854	55	65,171	4	66,320	0	NA	0	NA	0	NA	0	NA	112	63,298
45-49	0	NA	0	NA	14	63,743	27	68,560	35	70,348	6	71,310	0	NA	0	NA	0	NA	82	68,702
50-54	0	NA	0	NA	0	NA	12	69,978	19	68,453	21	74,741	8	78,836	0	NA	0	NA	60	72,343
55-59	0	NA	0	NA	0	NA	2	103,205	1	67,240	6	74,430	11	81,257	1	67,240	0	NA	21	80,062
60-64	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA
65-69	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA
70 & over	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA
Totals	124	42,137	114	53,297	181	61,227	100	67,539	59	69,412	33	74,060	19	80,238	1	NA	0	NA	631	59,062

IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

ANALYSIS OF RETIREES AND BENEFICIARIES as of July 1, 2007 Males and Females

Number of Participants								
<u>Age</u>	<u>Service Retirement</u>	<u>Accidental Disability</u>	<u>Ordinary Disability</u>	<u>Vested Retirement</u>	<u>Child Beneficiary</u>	<u>Contingent Beneficiary</u>	<u>Deferred Vested</u>	<u>Total</u>
Under 40	0	4	0	0	11	0	15	30
40 to 44	0	4	0	0	0	2	8	14
45 to 49	0	3	0	0	0	3	5	11
50 to 54	0	7	1	0	0	4	4	16
55 to 59	52	12	2	2	0	4	0	72
60 to 64	64	17	3	7	0	6	0	97
65 to 69	64	17	1	7	0	11	0	100
70 to 74	54	13	2	1	0	17	0	87
75 to 79	33	5	1	1	0	17	0	57
80 to 84	36	1	0	0	0	11	0	48
85 to 89	5	1	0	0	0	6	0	12
90 to 94	2	0	0	0	0	6	0	8
95 to 99	0	0	0	0	0	3	0	3
100 & over	0	0	0	0	0	0	0	0
Totals	310	84	10	18	11	90	32	555

IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

ANALYSIS OF RETIREES AND BENEFICIARIES

as of July 1, 2007

Males and Females

Average Annual Benefits of Participants

<u>Age</u>	<u>Service Retirement</u>	<u>Accidental Disability</u>	<u>Ordinary Disability</u>	<u>Vested Retirement</u>	<u>Child Beneficiary</u>	<u>Contingent Beneficiary</u>	<u>Deferred Vested</u>
Under 40	NA	16,779	NA	NA	0	NA	6,789
40 to 44	NA	34,352	NA	NA	NA	17,980	16,678
45 to 49	NA	38,791	NA	NA	NA	17,636	15,432
50 to 54	NA	40,116	28,329	NA	NA	23,761	32,910
55 to 59	54,727	42,109	34,382	10,811	NA	27,016	NA
60 to 64	51,417	41,591	38,802	10,937	NA	20,727	NA
65 to 69	42,932	36,557	32,949	12,286	NA	19,240	NA
70 to 74	37,300	36,018	26,224	6,350	NA	19,451	NA
75 to 79	32,150	36,445	25,384	5,616	NA	18,197	NA
80 to 84	31,306	28,981	NA	NA	NA	18,277	NA
85 to 89	27,299	27,330	NA	NA	NA	17,670	NA
90 to 94	30,288	NA	NA	NA	NA	19,891	NA
95 to 99	NA	NA	NA	NA	NA	18,722	NA
100 & over	NA	NA	NA	NA	NA	NA	NA
Totals	42,850	38,157	32,428	10,897	5,068	19,451	14,731

APPENDIX B

SUMMARY OF PLAN PROVISIONS

Chapter 97A of the Iowa code sets out the benefit provisions of the Iowa Peace Officers' Retirement, Accident and Disability System, which are briefly summarized as follows:

Retirement Benefit

Eligibility

Age 55 with 22 years of service.

Monthly Annuity

The sum of (1) and (2):

- (1)
 - a. For retirement prior to July 1, 1990, 50% of average final compensation at retirement. Average final compensation equals average of highest three years of compensation.
 - b. For retirement after June 30, 1990 and before July 1, 1992, 54% of average final compensation at retirement.
 - c. For retirement after June 30, 1992 and before July 1, 1993, 56% of average final compensation at retirement.
 - d. For retirement after June 30, 1993 and before July 1, 1994, 58% of average final compensation at retirement.
 - e. For retirement after June 30, 1994, and before July 1, 2000, 60% of average final compensation at retirement.
 - f. For retirement after July 1, 2000, 60.5% of average final compensation at retirement.
- (2) For members who do not withdraw member contributions:
 - a. For retirement after June 30, 1990 and before July 1, 1991, 0.3% of average final compensation for each year of service over 22 years (up to 8 years). Service after age 55 is excluded.
 - b. For retirement after June 30, 1991 and before October 16, 1992, 0.6% of average final compensation for each year of service over 22 years (up to 8 years). Service after age 55 is excluded.

- c. For retirement after October 15, 1992 and before July 1, 1996, 0.6% of average final compensation for each year of service over 22 years (up to 8 years).
- d. For retirement after June 30, 1996, 1.5% of average final compensation for each year of service over 22 years (up to 8 years).
- e. For retirement after June 30, 1998, 1.5% of average final compensation for each year of service over 22 years (up to 10 years).
- f. For retirement after June 30, 2000, 2.75% of average final compensation for each year of service over 22 years (up to 10 years).

Early Retirement Benefit

Eligibility

Effective July 1, 1996, age 50 (but not age 55) with 22 years of service.

Monthly Annuity

The benefit provided as a retirement benefit actuarially reduced for commencement prior to age 55.

Deferred Vested Benefit

Eligibility

Four years of service.

Monthly Annuity

At age 55. The benefit provided as a retirement benefit at termination times a service ratio. The service ratio equals service at termination divided by 22 (not greater than 1.0).

Ordinary Disability Benefit

Eligibility

None.

Benefit

- (1) If service at disability is greater than or equal to 5 years, 50% of average final compensation at disability.

- (2) If service at disability is greater than or equal to 22 years, the greater of (1) or the benefit amount calculated under a service retirement. Effective July 1, 1998, the service requirement does not apply.
- (3) If service at disability is less than 5 years, 25% of average final compensation at disability.

Accidental Disability Benefit

Eligibility

None.

Benefit

- (1) For retirement prior to July 1, 1990, 66-2/3% of average final compensation at disability.
- (2) For retirement after June 30, 1990, 60% of average final compensation at disability. If the service amount at disability is greater than or equal to 22 years, the greater of 60% of average final compensation at disability or the benefit amount calculated under a service retirement.

Ordinary Death Benefit

Eligibility

For member in service: None.

For member not in service: Four years of service.

Benefit

- (1) A lump sum equal to 50% of compensation during the last year of employment, or
- (2) A pension based on 40% of average final compensation but not less than 25% of compensation paid to an active member having the rank of senior patrol officer of the Iowa Highway Safety Patrol. For members not in service, benefit is multiplied by the ratio of service at termination to 22 years (not greater than 1.0).
- (3) Additional benefit for members in service of 6% of compensation payable to an active member having the rank of senior patrol officer of the Iowa Highway Safety Patrol for each child.

Payment Date

- (1) For members in service: Immediately upon death of member.
- (2) For member not in service: Payable when member would have been age 55. If there are children of the member, payable commencing at the member's death until children reach age 18 or 22. Pension resumes when member would have been age 55.

Accidental Death Benefit

Eligibility

In actual performance of duty.

Benefit

- (1) 50% of average final compensation payable to surviving spouse, children or dependent parents.
- (2) If there is not surviving spouse, children or dependent parents, or if accidental death occurs while not in the actual performance of duty, an Ordinary Death Benefit is payable.
- (3) Additional benefit for members in service of 6% of compensation payable to an active member having the rank of senior patrol officer of the Iowa Highway Safety Patrol, for each child.
- (4) If the death meets specified criteria, a lump sum of \$100,000 payable to surviving spouse, children, dependent parents, or estate.

Death After Retirement

Benefit

- (1) 50% of retirement allowance of retired member but not less than 25% of compensation paid to an active member having the rank of senior patrol officer of the Iowa Highway Safety Patrol.
- (2) Additional benefit of 6% of compensation payable to an active member having the rank of senior patrol officer of the Iowa Highway Safety Patrol, for each child.

Adjustments to Pensions

Each July 1 the following adjustments are made: Monthly earnable compensation payable to an active member, of the same rank and position in the salary scale as was held by the retired or deceased member at the time of the member's retirement or death, for July of the current year less that of the preceding July, times the following percentages:

- (1) 40% for members receiving a service retirement allowance and for beneficiaries receiving an accidental death benefit.
- (2) 40% for members with five or more years of membership who are receiving an ordinary disability benefit.
- (3) 40% for member receiving an accidental disability benefit.
- (4) 24% for members with less than five years of membership who are receiving an ordinary disability benefit and for beneficiaries receiving an ordinary death benefit.
- (5) 50% of the amount which would have been added to the benefit of the retired member, for surviving spouses, but not less than 25% of the monthly earnable compensation paid to an active member having the rank of senior patrol officer.

Additionally, the following aggregate amounts will be added to a member or beneficiary monthly pension as follows:

<u>Years Since Retired*</u>	<u>Increase Per Year</u>
0-4	\$15
5-9	20
10-14	25
15-19	30
20 or more	35

*Measured in whole years.

Surviving children's pensions are adjusted each July to equal 6% of monthly earnable compensation payable to an active member having the rank of senior patrol officer of the Iowa Highway Safety Patrol.

Member Contributions

- (1) The following percentage of earnable compensation will be paid as member contributions:

<u>Period</u>	<u>Member Contribution Rate</u>
January 1, 1995 - June 30, 1995	8.35%
July 1, 1995 forward	9.35%

- (2) Beginning July 1, 1996 and each fiscal year thereafter, the system will increase the member contribution rate as necessary to cover the increased cost to the system resulting from statutory changes enacted by any session of the general assembly after January 1, 1995 if such increase cannot be absorbed within the contribution rate otherwise established, subject to a maximum member contribution rate of 11.3%. After this maximum rate is reached, 60% of any additional costs due to statutory changes will be absorbed by the employer and 40% will be paid by the members.

Withdrawal of Member Contributions

Effective July 1, 1990, members who terminate service, other than by death or disability, can elect to withdraw their accumulated contributions with interest in lieu of any benefits to which the member may be entitled from the System.

Transfers With Statewide Fire and Police Retirement System

Beginning July 1, 1996, vested members of an eligible retirement system who terminate employment and, within one year, commences covered employment under another eligible retirement system, may elect to transfer the average accrued benefit or the refund liability earned from the former system to the current system. Once such transfer is completed, service under the former system shall be treated as membership service under the current system.

APPENDIX C

ACTUARIAL METHOD AND ASSUMPTIONS

Actuarial Cost Method

The Aggregate Actuarial Cost Method has been used in this valuation. Under this method, the normal cost (the portion of the total cost of pension benefits under this plan allocated to the current year under this actuarial cost method) is determined by multiplying the normal cost accrual rate for the current year by the total valuation earnings for active participants under the assumed retirement age on the current valuation date.

An actuarial accrued liability, as such, is not determined under the Aggregate Actuarial Cost Method; all past and future costs are funded over the future. The normal cost accrual rate for the current year is:

1. the actuarial present value of projected pension benefits for all participants determined using the assumptions shown below for normal cost, minus the actuarial value of assets (as reported by the System), both as of the current valuation date, divided by
2. the actuarial present value of the expected future valuation earnings for all active participants from the current valuation date to the assumed retirement age.

Actuarial gains and losses are reflected in this accrual rate and are spread over the current and future years' normal costs. Experience gains will reduce and experience losses will increase future normal cost accrual rates.

Actuarial Assumptions

Active Members:

1. Ordinary death rate RP-2000 Mortality Table for Employees with Generational Projection.
2. Accidental death rate 8.5 deaths per 10,000 exposed for one year.
3. Disability rates

<u>Age</u>	<u>Accidental Disability</u>	<u>Ordinary Disability</u>
22	0.14%	0.09%
27	0.15%	0.10%
32	0.20%	0.13%
37	0.24%	0.16%
42	0.29%	0.19%
47	0.36%	0.24%
52	0.46%	0.31%

4. Withdrawal rate The following table is used:

<u>Service</u>	<u>Rate</u>
0	5.0%
1-2	3.5%
3	3.0%
4	2.5%
5	2.0%
6	1.5%
7-14	1.0%
15-19	0.5%
20	0.0%

6. Retirement age

<u>Age</u>	<u>Probability of Retirement</u>
55	45%
56	30%
57-59	20%
60-61	50%
62	100%

7. Salary scale

<u>Year</u>	<u>Increase</u>
0-5	6.75%
6	6.50%
7	6.00%
8-24	5.25%
25+	4.75%

8. Post-retirement adjustments

Same as for retired members.

Retired Members and Other Beneficiaries:

1. Mortality rate - Service retirees

Service retirements and beneficiaries: RP-2000 Mortality Table for Healthy Annuitants with Generational Projection Mortality Tables - Male and Female.

2. Mortality rate - Disabled retirees

Disability retirements: RP-2000 Mortality Table for Healthy Annuitants with Generational Projection with a 5 year age set forward.

3. Annual readjustment of pensions

Wages for the same rank are assumed to increase 4%.

Dependency Ratios:

1. Ordinary death benefit

Alternate benefits payable to widow and minor children in 90% of cases.

2. Pension to spouse and children of deceased pensioned member

In 90% of cases.

Interest Rate:

8% per year.

Price Inflation:

3.5% per year.

Wage Inflation:

4.0% per year, including price inflation.

Reconciliation of Member Status
From July 1, 2006 to July 1, 2007

	Active Members	Members & Beneficiaries Receiving Benefits	Former Members with Deferred Benefits	Children Receiving Benefits	Total
Members as of July 1, 2006	618	489	34	12	1,153
Began Receiving Benefits	(25)	+30	(1)	0	+4
Terminated Without Further Benefit Eligibility (including refunds of contributions)	(4)	0	(1)	0	(5)
Terminated With Benefit Eligibility	0	0	0	0	0
Returned to Active Status	0	0	0	0	0
Deceased	0	(7)	0	0	(7)
Benefits Ended	0	0	0	(1)	(1)
Newly Hired	+42	0	0	0	+42
Adjustments	0	0	0	0	0
Members as of July 1, 2007	631	512	32	11	1,186